

NOTES:

1. Template with minimum 1'-6" toe cover is based on wall at its layout line, & and may be used for taking sections perpendicular to roadway center line with offsets.
2. Quantity of structure excavation (EM₁) may be calculated either by formula with average H and θ at wall layout line or by actual area from graphic model.
3. Earth removal, outside the boundaries as defined shall be defined under roadway quantities as unclassified excavation.
4. Use of reinforced soil foundation (RFS) is an option for bridging over weak foundation material.
5. The width (WRSF) and depth (DRSF) shall be addressed in both the project plans and geotechnical report.
6. Given end of wall to end of wall stations, with wall segment lengths defined, a spreadsheet may be required for summing up wall related quantity calculations.

θ = Average Angle of Existing Ground Line **SECTION VIEW**

CONDITION: $H \geq 1.5 + 3 \tan(\theta)$

$$EM_1 = [(H + h/2)(0.45DH + 0.75(H + h)) - 0.375(H + h)^2 + (H/2 + 1.5)(H) - 0.5(H + 1.5) \left(\frac{1 + \tan \theta}{1 - \tan \theta} \right)] / 27$$

$$BM_1 = [3.375 + (RL)(DH)] / 27$$

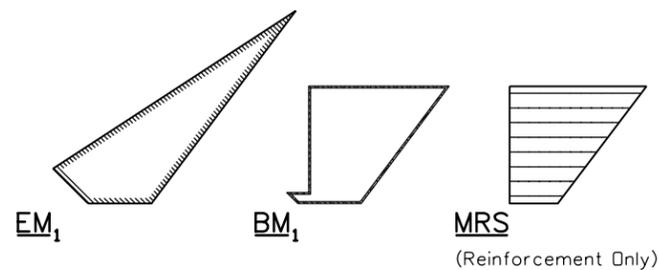
$$MRS = [(DH)(RL)] / 27$$

$$PLG = [1.2 DH]$$

$$h = (0.45DH + 0.75H) \left(\frac{1 + \tan \theta}{1 - 0.75 \tan \theta} \right)$$

$$RSF = [(WRSF)(DRSF)] / 27$$

Example:
 Inputs - DH=16'; Average RL=0.83DH=13.28'; H=8'; θ=30°
 Outputs - h=13.44'; EM₁=7.32 (c.y./ft.); BM₁=8.0(c.y./ft.); MRS=7.8(c.y./ft.); PLG=19.2(ft./ft.)



Revision Dates	(Preliminary Stage Only)
09-16	

Quantities	INITIAL	DATE
Quantities By		
Checked By		
Design	INITIAL	DATE
Designed By		
Checked By		
Detail	INITIAL	DATE
Detailed By		
Checked By		

Print Date: 9/6/2016
File Name: Sheet_B-504-Q4.dgn
Horiz. Scale: As Noted Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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Staff Bridge Branch **Initials**

As Constructed
No Revisions:
Revised:
Void:

Pay Items For Truncated Base MSE Wall With 3/4:1 Soil Excavation			
Designer:	XXXXXXX	Structure	Wall-X-XX-XX
Detailer:	XXXXXXX	Numbers	Wall-X-XX-XX
Sheet Subset:	Wall	Subset Sheets:	WXX of XXX

Project No./Code
Project Number
Code
Sheet Number